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### Remarks

Reconsideration of the above-captioned application is respectfully requested. The indefiniteness rejection has been cured hereby. Claims 1, 7-9, and 22 have been rejected under 35 U.S.C. §102 as being anticipated by Zhang et al., USPN 6,528,782 alleging that the rack-and-pinion mechanism shown in Figures 13a and 13b meet the claimed "cam coupling the shaft to the valve elements to transform one hundred eighty degrees (180°) of rotation of the gear train shaft to ninety degrees (90°) of rotation of the valve elements."

The examiner's attention is directed to col. 24, lines 40-60. When a voltage is applied to a muscle wire 1325, it linearly retracts, moving a rack 1312 linearly to turn a pinion 1314. Thus, the only thing that rotates is the pinion. For this reason, it cannot be said of the mechanism of Zhang et al. that it transforms one rotation to another (as otherwise required in Claims 1 and 22), because it actually transforms linear motion of the muscle wire to rotational motion of the pinion through the rack. Moreover, absolutely no discussion of the mechanism in figures 13a and 13b indicates anything about degrees of arc through which any rotating component moves, much less that one component rotates through 180 degrees while another rotates through 90 degrees as required by Claim 1.

This leaves only independent Claim 13 at issue, which (along with dependent claims 14, 17, and 19) has been rejected under 35 U.S.C. §103 as being unpatentable over Zhang et al. in view of Hirose et al., USPN 6,947,296 based on the allegation that Hirose et al. supplies voltage in the range of 100-270 volts. Hirose et al. is directed to surge protection in the television art, and it includes a main power supply and a standby power supply that supplies a microcontroller, so that when the TV is off the microcontroller can receive an "on" signal from a remote control to energize the main power supply. As taught at col. 7, lines 49-62, the standby circuit that powers the microcontroller can operate at a wide range of input voltages

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because it outputs low power, whereas the main power supply, because it outputs high power, cannot operate over a wide input voltage range.

With this actual teaching of the reference in mind, the deficiencies in the *prima facie* case become clear. First, the television art of Hirose et al. is not analogous to the skylight valve assembly art of Claim 13. Consulting the guidance of MPEP §2141.01(a) on the topic, the two fields are in different classifications, militating toward non-analogousness. Further, the differences in functions between Claim 13 and Hirose et al. are gaping. Claim 13 seeks to provide a robust power supply for moving a skylight valve, while Hirose et al. seeks only to power a TV microcontroller so that it can receive remote control commands when the TV is off. Still further, Applicant notes that under "analogy in the electrical arts" in the referenced MPEP section, a case is discussed in which a much closer call - PC memory versus memory for industrial controllers - resulted in a finding of no analogousness. Essentially, as the MPEP dictates, analogousness in the present case can only be established if the examiner can show that powering TV microcontrollers "would have logically commended itself" as a technical source for the skylight valve artisan, a proposition the improbability of which becomes manifest as soon as it is articulated.

Additionally, apart from the fact that it is not analogous, Hirose et al. provides insufficient suggestion to combine it with the device of Zhang et al., because Hirose et al. teaches a wide range of input voltages only when the output power is "low", i.e., sufficient to energize a small microcontroller, not when the output power is "high", i.e., sufficient to power a TV. Nowhere does the rejection explain why the skilled artisan would believe that Zhang et al.'s power requirements more closely parallel those of a tiny microcontroller as opposed to a conventional appliance. Indeed, the opposite would appear to be true, leading

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the skilled artisan away from using a robust power supply in Zhang et al., based on the teachings of Hirose et al.

The Examiner is cordially invited to telephone the undersigned at (619) 338-8075 for any reason which would advance the instant application to allowance.

Respectfully submitted,

  
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John L. Rogitz  
Registration No. 33,549  
Attorney of Record  
750 B Street, Suite 3120  
San Diego, CA 92101  
Telephone: (619) 338-8075

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